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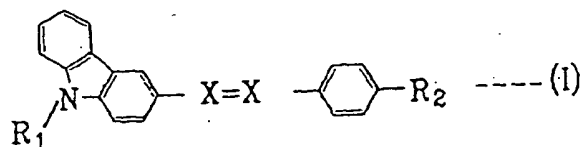
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(54) Title of the Invention:

Carbazole-containing Nonlinear Photoelectric Compound and Method for
manufacturing Optical Device using the Compound

Abstract:

A nonlinear photoelectric compound having formula (1) below and a method for
manufacturing an optical waveguide device using the nonlinear photoelectric compound as
an organo-photoelectric compound and polyimide as a polymer medium are provided:



where R₁ is a C1-C10 alkyl group, an C2-C10 alkyl group with alcohol-substituted end, or

a substituted or unsubstituted phenyl or naphthal group; R₂ is a nitro group, a C₁-C₁₀ alkylsulfonyl group, a C₂-C₁₀ alkylsulfonyl group with alcohol-substituted end, or a substituted or unsubstituted phenylsulfonyl group; and X is carbon or nitrogen. The nonlinear photoelectric compound has excellent electrooptical characteristics and does not thermally decompose and sublimate even at above 250°C. An optical device with low optical transmission loss can be manufactured using the nonlinear photoelectric compound.